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photosphere. It is hoped that a quantitative study of the question may soon be made. GEORGE E. HALE.

NEW COMPANIONS TO TWO STRUVE STARS.

Examination with the 36-inch telescope has recently shown that the principal component in each of the two well-known double stars, Σ 1729 and Σ 2668, is itself a close unequal pair. My measures of the old and new companions are as follows:—

	Σ 1729.			
	A and B (New).			
Date.	Angle.	Dist.	Magnitudes.	
1906.50	120°.8	0″.29	8.9-10.3	3^n
	A B and C.			
1906.47	274°.8	8″.46	8.8-11.0	1^n
	Σ 2668.			
	A and B (New).			
1906.54	111°.5	0″.26	7.0-9.0	2^n
	A B and C.			
1906.54	286°.3	3″.26	6.8-9.0	2^n

STRUVE'S measure of the latter pair is, 1831.14 293°.6 3″.30, perhaps indicating very slow motion. Σ 1729 has shown no motion whatever in the seventy-five years since its discovery. R. G. AITKEN.

July 21, 1906.

A ROAD TO MT. WILSON.

On the occasion of President WOODWARD'S recent visit to the Solar Observatory, it was decided to widen the "New Trail," which ascends from the foot of Eaton Cañon, into a road suitable for the transportation of the heavy castings of the 5-foot reflector mounting. President WOODWARD recommended that Mr. GODFREY SYKES, superintendent of construction at the Desert Botanical Laboratory of the Carnegie Institution, be placed in immediate charge of the work, on account of his skill as an engineer and his experience in the building of trails in Arizona. This was rendered possible through the courtesy of Director MACDOUGAL, of the Botanical Laboratory, who arranged to give Mr. SYKES a leave of absence.

Work has been commenced, and will be pushed forward as rapidly as possible, in the hope that the structural steel for the building which is to contain the 5-foot reflector may be sent up the mountain in May, 1907.

The width of the road, which is determined by the size of the large castings to be transported, will average about eight feet, widening to ten feet or more on the turns. The automobile truck, on which the materials for the building and telescope will be carried, has been ordered from the Couple-Gear Freight-Wheel Company, of Grand Rapids. It has been specially designed for the purpose, as the 10-foot worm-gear and other large and cumbersome parts of the mounting (some of them weighing five tons each) could not be carried on the standard truck. The motive power will be a gasoline engine of about forty horse-power, driving a large direct-current dynamo. The dynamo will supply current to four motors mounted within the four wheels of the truck. This truck, which is capable of turning within a very small circle, has been tested by Professor RITCHEY and found to be remarkably well adapted for our purpose. It can be steered equally well from either end, thus permitting it to be reversed, if necessary, at sharp re-entrant turns.

As soon as completed, the truck will be used in the construction work on the trail. For this purpose it will carry an air-compressor of sufficient capacity to supply several rock-drills. The compressor will be driven by the gasoline engine of the truck, and will greatly reduce the cost of the rockwork.

GEORGE E. HALE.

NOTE ON THE VARIABLE RADIAL VELOCITY AND THE PERIOD OF *SU CYGNI*.

Preliminary measures of ten spectrograms of *SU Cygni*, taken with the one-prism spectrograph during June and July, 1906, show a variation of about forty kilometers per second in its radial velocity, and prove its binary character.

The velocity and light variation seem to have the same period, the phases of the former following those of the latter by about half a day.

Photometric measures of the star on seven nights in June and July of this year indicate that its maxima now precede the